

## Innovative Microbial Surface Sampler, Phase I

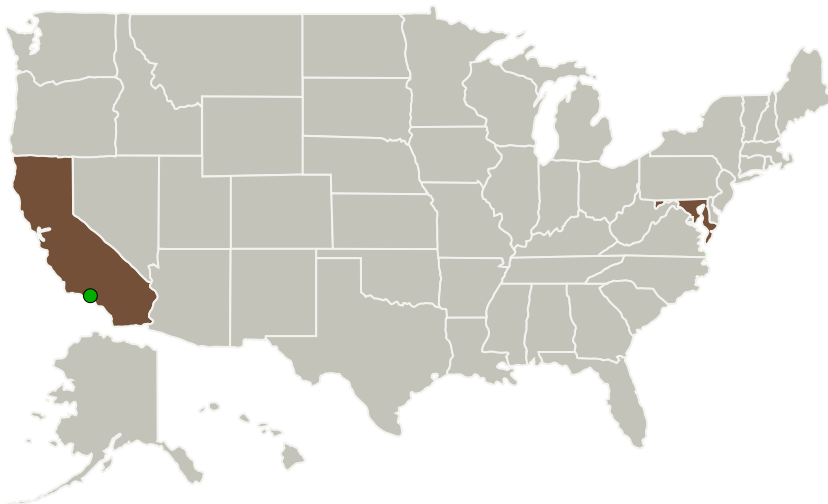
Completed Technology Project (2016 - 2016)




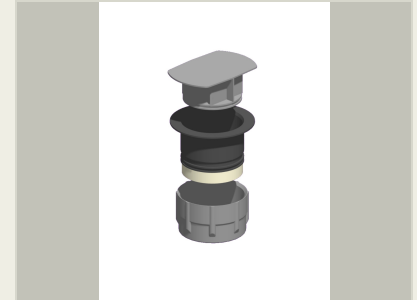
## Project Introduction

The QS Team will develop an Innovative Microbial Surface Sampling (IMSS) device design and provide prototype kits for use in the International Space Station (ISS). The sampler will meet key design characteristics including: design based on QS's BisKit macrofoam sponge; able to withstand Gamma irradiation and/or autoclave; allow sampling up to 1M2 in a single sample; contain up to 15 ml of buffer within the sampler and not release buffer during sampling at low pressure (8 psi); designed so as to allow a small sample of buffer to be extracted while in the ISS for local plating; be as compact as possible; have a two year shelf life; easy for ISS staff to use; stable in storage for up to six weeks; certified sterile and have a verified DNA background ? below 1000 rRNA gene copies.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
QuickSilver Analytics, Inc.	Lead Organization	Industry	Belcamp, Maryland
 Jet Propulsion Laboratory(JPL)	Supporting Organization	NASA Center	Pasadena, California



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## Primary U.S. Work Locations

California

Maryland

## Project Transitions

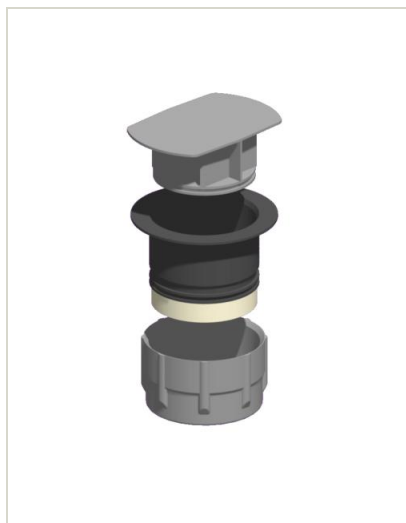
**June 2016:** Project Start

**December 2016:** Closed out

### Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/139872>)

## Images



### Briefing Chart Image

Innovative Microbial Surface Sampler, Phase I  
(<https://techport.nasa.gov/image/129753>)



### Final Summary Chart Image

Innovative Microbial Surface Sampler, Phase I Project Image  
(<https://techport.nasa.gov/image/134343>)

## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Organization:

QuickSilver Analytics, Inc.

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

## Project Management

### Program Director:

Jason L Kessler

### Program Manager:

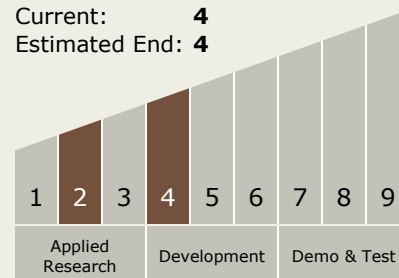
Carlos Torrez

### Principal Investigator:

Rodney Hudson

## Technology Maturity (TRL)

Start: 2  
Current: 4  
Estimated End: 4



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## Technology Areas

### Primary:

- TX06 Human Health, Life Support, and Habitation Systems
  - └ TX06.4 Environmental Monitoring, Safety, and Emergency Response
    - └ TX06.4.1 Sensors: Air, Water, Microbial, and Acoustic

## Target Destinations

The Moon, Mars, Outside the Solar System, The Sun, Earth, Others Inside the Solar System